Preface

In December 2000 the U.S. Environmental Protection Agency (EPA) issued a final rulemaking on Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements. The purpose of the rulemaking is to reduce emissions of nitrogen oxides and particulate matter from heavy-duty highway engines and vehicles that use diesel fuel. The rulemaking requires new emissions standards for heavy-duty highway vehicles that will take effect in model year 2007. "The pollution emitted by diesel engines contributes greatly to our nation's continuing air quality problems," the EPA noted in its regulatory announcement. "Even with more stringent heavy-duty highway engine standards set to take effect in 2004, these engines will continue to emit large amounts of oxides of nitrogen (NO_x) and particulate matter (PM), both of which contribute to serious public health problems in the United States."

While the review of this rule was underway, the Committee on Science of the U.S. House of Representatives asked the Energy Information Administration (EIA) to provide an analysis of the proposal (Appendix A). The Committee noted that the proposed rule would reduce the level of sulfur in highway diesel by 97 percent. "These deep sulfur reductions will require significant investment s that not all refiners may choose to make. As a result, diesel fuel supplies could be affected," the Committee's letter stated.

In response to the Committee's request, EIA undertook an analysis incorporating two different analytical approaches. Mid-term issues and trends are addressed through scenario analysis using EIA's National Energy Modeling System. In addition, refinery cost analysis addresses the uncertainty of supply in the short term. Discussion of the key issues and uncertainties related to the distribution of ultra-low-sulfur diesel is based on interviews with a number of pipeline carriers. As suggested by the Committee, most of the major assumptions in this report are consistent with those used by the EPA in its Regulatory Impact Analysis (RIA) of the Rule.

Within its Independent Expert Review Program, EIA arranged for leading experts in the fields of energy and economic analysis to review earlier versions of this analysis and provide comment. The reviewers provided comments on two draft versions of the report and discussed their comments in a joint meeting. All comments from the reviewers either have been incorporated or were thoroughly considered for incorporation. As is always the case when peer reviews are undertaken, not all the reviewers may be in agreement with all the methodology, inputs, and conclusions of the final report. The contents of the report are solely the responsibility of EIA. The assistance of the following reviewers in preparing the report is gratefully acknowledged:

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